

WHAT IS CLAIMED IS:

1. A vehicle air-conditioning apparatus for a vehicle including a windshield, the vehicle air-conditioning apparatus comprising:

a dehumidification means, which dehumidifies inside of the vehicle, the dehumidification means including a compressor and an activation switch for activating the compressor;

a humidity calculation means, which calculates humidity in the vicinity of an inside surface of the windshield; and

a determination means, which determines whether the windshield is fogged on the basis of comparison between the humidity and a predetermined value, wherein:

a defogging operation for heightening dehumidifying performance of the dehumidification means is performed, when the determination means determines that the windshield is fogged in a state where the activation switch is turned on; and

the dehumidifying performance of the dehumidification means is lowered or condition in which the defogging operation is started is made to be difficult in the next defogging operation, when the windshield is determined to be fogged and the defogging operation is not manually performed in a state where the activation switch is turned off.

2. The vehicle air-conditioning apparatus according to claim 1, wherein the predetermined value is heightened or the humidity to be input to the determination means is offset to be lower

in order to make the condition in which the defogging operation is started difficult.

3. The vehicle air-conditioning apparatus according to claim 1, wherein the dehumidifying performance of the dehumidification means or the condition in which the defogging operation is manually started is determined on the basis of one of the number of times and frequency in which the defogging operation is manually started, when the defogging operation for defogging the windshield is not performed in a state where the windshield is determined to be defogged and the activation switch is turned off.

4. A vehicle air-conditioning apparatus for a vehicle including a windshield, the vehicle air-conditioning apparatus comprising:

a dehumidification means, which dehumidifies inside of the vehicle, the dehumidification means including a compressor and an activation switch for activating the compressor;

a humidity calculation means, which calculates humidity in the vicinity of an inside surface of the windshield; and

a determination means, which determines whether the windshield is fogged on the basis of comparison between the humidity and a predetermined value, wherein:

a defogging operation for heightening dehumidifying performance of the dehumidification means is performed, when the determination means determines that the windshield is fogged

in a state where the activation switch is turned on; and

the dehumidifying performance of the dehumidification means is heightened or condition in which the defogging operation is started is made to be easy in the next defogging operation, when the windshield is determined not to be fogged and the defogging operation is manually performed in a state where the activation switch is turned on.

5. The vehicle air-conditioning apparatus according to claim 4, wherein the predetermined value is lowered or the humidity to be input to the determination means is offset to be higher in order to make the condition in which the defogging operation is started easy.

6. The vehicle air-conditioning apparatus according to claim 4, wherein the dehumidifying performance of the dehumidification means or the condition in which the defogging operation is manually started is determined on the basis of one of the number of times and frequency in which the defogging operation is manually started, when the defogging operation for defogging the windshield is performed in a state where the windshield is determined not to be defogged and the activation switch is turned on.

7. The vehicle air-conditioning apparatus according to claim 1, further comprising a defroster air outlet and a heating device, wherein:

the vehicle includes at least one of a door window and a sun roof; and

the defogging operation is selected from the group of:  
turning on the activation switch;  
opening the defroster air outlet;  
opening at least one of the door window and the sun roof;  
changing air inlet mode from inside mode, in which inside air of the vehicle is circulated in the vehicle, into outside mode, in which outside air is introduced into the vehicle; and  
turning on the heating device.

8. The vehicle air-conditioning apparatus according to claim 4, further comprising a defroster air outlet and a heating device, wherein:

the vehicle includes at least one of a door window and a sun roof; and

the defogging operation is selected from the group of:  
turning on the activation switch;  
opening the defroster air outlet;  
opening at least one of the door window and the sun roof;  
changing air inlet mode from inside mode, in which inside air of the vehicle is circulated in the vehicle, into outside mode, in which outside air is introduced into the vehicle; and  
turning on the heating device.